

## CLAIMS

What is claimed is:

1. A tone dialer, comprising:
  - 5 a dial buffer adapted to contain a plurality of tone generator commands; and
    - a tone generator adapted to generate tones in accordance with a sequence of said plurality of tone generator commands;
    - 10 wherein said tone generator commands include a first command corresponding to a mimicked activation of a particular key, and a second command corresponding to a mimicked release of said particular key.
  - 15 2. The tone dialer according to claim 1, wherein:
    - said dial buffer is circular.
  - 20 3. The tone dialer according to claim 1, further comprising:
    - a timer to time a generated length of tones when said dial buffer contains a plurality of non-null commands.
  - 25 4. The tone dialer according to claim 3, wherein:
    - when said dial buffer contains no more than one non-null command, said tone generator is adapted to generate said non-null tone until said second command is received.
  5. The tone dialer according to claim 1, wherein:
    - said dial buffer and said tone generator are comprised in a single processor device.

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6. The tone dialer according to claim 5, wherein:  
said single processor device is a digital signal processor.

5           7. The tone dialer according to claim 1, wherein:  
said dial buffer is a first in, first out device.

8. The tone dialer according to claim 1, wherein:  
said dial buffer is adapted to contain a stop DTMF tone  
generator command in every other location.

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9. The tone dialer according to claim 1, wherein:  
said generated tones are dual tone, multiple frequency  
tones.

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10. A method of digitally generating tones, comprising:  
inputting a plurality of tone commands into a dial buffer  
accessible by a first processor;  
sequentially presenting said output sequence of tone  
command information to a tone generator; and  
20           generating tones on a continuous basis when only one non-  
null tone command is available in said dial buffer.

11. The method of digitally generating tones according to  
claim 10, further comprising:

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generating tones on a fixed timing basis when more than  
one non-null tone command is available in said dial buffer.

12. Apparatus for digitally generating tones, comprising:  
means for inputting a plurality of tone commands into a dial  
buffer accessible by a first processor;  
means for sequentially presenting said output sequence of  
5 tone command information to a tone generator; and  
means for generating tones on a continuous basis when  
only one non-null tone command is available in said dial buffer.

13. The apparatus for digitally generating tones according  
10 to claim 12, further comprising:

means for generating tones on a fixed timing basis when  
more than one non-null tone command is available in said dial buffer,

14. The apparatus for digitally generating tones according  
15 to claim 12, wherein:

said first processor is a digital signal processor

15. The apparatus for digitally generating tones according  
to claim 12, wherein:

20 said digital signal processor includes a tone generator.

16. The apparatus for digitally generating tones according  
to claim 12, wherein:

said dial buffer is circular.

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17. The apparatus for digitally generating tones according  
to claim 12, wherein said means for generating tones comprises:  
a dual tone, multiple frequency tone generator.